CERTIFICATE OF MAILING

I hereby certify that this Transmittal is being deposited with the U.S. Postal Service, with sufficient postage, in an envelope addressed to the Board of Patent Appeals, Washington, D.C. 20231, on this 3RD day of AUGUST, 2001.

Carole Giacomazzo

Carole Giacomazzo

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	John Humphries Parkes	)	Examiner: Nave
Serial No.:	09/392,925	)	Art Unit: 1754
Filed:	September 9, 1999	)	
For:	**METHOD AND APPARATUS FOR ROCKET MOTOR DISPOSAL**	)	

Docket No. JHP-10-5377

Board of Patent Appeals
Assistant Commissioner for Patents
Washington, D.C. 20231

TRANSMITTAL OF APPEAL BRIEF

Board of Patent Appeals
Assistant Commissioner for Patents
Washington, D. C. 20231

Dear Sir:

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal filed on June 4, 2001.

Note: "The applicant shall, within 2 months from the date of the notice of appeal under § 1.191 in an application, reissue application, or patent under reexamination, or within the time allowed for response to the action appealed from, if such time is later, file a brief in triplicate." 37 CVF 1.192(a) [emphasis added].

2. **STATUS OF APPLICATION**

This application is on behalf of

other than a small entity

☒ small entity

Verified statement:

☐ attached
☒ already filed

3. **FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

☒	small entity	$ 155.00
	other than small entity	$ 310.00

Appeal Brief fee due: $155.00

4. **EXTENSION OF TERM**

Note: The time periods set forth in 37 CFR 1.192(a) are subject to the provision of § 1.136 for patent application. 37 CFR 1.191(d). Also see Notice of November 5, 1985 (1060 O.G. 27).

The proceedings herein are for a patent application and the provisions of 27 CFR 1.136 apply.

(complete (a) or (b) as applicable)

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

	Extension Months	Fee for other than small entity	Fee for small entity
☐	one month	$110.00	$55.00
☐	two months	$380.00	$190.00
☐	three months	$870.00	$435.00
☐	four months	$1,360.00	$925.00
		Fee:	

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for _____ months has already been secured and the fee paid therefor of $_____ is deducted from the total fee due for the total months of extension now requested.

or

☒ (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

5. **TOTAL FEE DUE**

The total fee due is:

Appeal Brief fee	$155.00
Extension fee (if any)	$ 0.00

TOTAL FEE DUE: $155.00

6. **FEE PAYMENT**

☐ Attached is a check in the sum of $_____

☒ Charge **Account No. 500645** in the sum of **$155.00.** A duplicate of this transmittal is attached.

7. **FEE DEFICIENCY**

NOTE: If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. if the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, 1065 O.G. 31-33.

☒ If any additional extension and/or fee is required, this is a request therefor and to charge **Account No. 500645**.

AND/OR

☒ If any additional fee for claims is required, charge **Account No. 500645.**

Respectfully submitted,

Date: 8-3-01

William N. Hogg, Reg. No. 20,156
Driggs, Lucas, Brubaker and Hogg Co., L.P.A
8522 East Avenue
Mentor, Ohio 44060
(440) 205-3600
Fax: (440) 205 3601

WNH:cg
Attachments

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APPEAL BRIEF

Board of Patent Appeals
Assistant Commissioner for Patents
Washington, D. C. 20231

Dear Sir:

I. REAL PARTY IN INTEREST

The real party in interest in the above-entitled application is the inventor, Mr. John Humphries Parkes.

II. RELATED APPEALS AND INTERFERENCES

The undersigned attorney is not aware of any related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-9 and 21-23 are pending in the present application, and have been finally rejected by the Examiner.

IV. STATUS OF AMENDMENTS

An amendment after final rejection was filed in the U.S. Patent Office on May 2, 2001 by facsimile. This amendment was not entered by the Examiner in a response thereto dated May 15, 2001

V. SUMMARY OF THE INVENTION

The present invention provides a safe, environmentally friendly and adaptable open burning method for disposing of rocket motors. A unit 1 for securing a rocket motor and generating a liquid enclosure around a burning propellant from the rocket motor is provided. Unit 1 includes a frame 2 mounted on an open rectangular base 3. Adjustable clamps 4 provided on the frame 2 can be tightened to secure a rocket motor in place in the unit 1 with the rear or exhaust end of the motor facing upward. A pipe 5 is mounted to the bottom of the frame 2 and has an inlet 6 to which a high pressure pipeline is fitted in a liquid-tight manner. A plurality of vertical pipes 7 lead from the annular pipe 5 to an annular nozzle 8 mounted around the top of the frame 2. The nozzle has a continuous annular outlet 9 facing generally upwardly. This unit is especially adapted for burning of the propellant in a rocket propelled munition to be disposed of.

Before the propellant is disposed of, the warhead or other ordinance must be removed. It is preferred, but not absolutely necessary, to remove the rocket motor's venturi to improve performance. This improved performance is the result of a less energetic exhaust flow and allows the formation of a denser, more easily contained exhaust cloud. However, if removal of the venturi mechanism is difficult or dangerous, then the method of this invention can be performed with the venturi mechanism in place. However, the explosive ordinance must be removed.

As can be best be seen in Figure 5, a rocket motor 12 is placed in the frame 2 and the clamps 4 are tightened around the rocket motor. Water, optionally containing one or more neutralizing chemicals, is forced through the pipeline 11, into an annular pipe 5, up the vertical pipes 7 and out

the outlet 9 of the annular nozzle 8. In this manner, a cylindrical enclosure 13 of water is formed completely surrounding the exhaust plume 14 of the rocket motor when it is ignited. The water enclosure 13 captures noxious particulate matter exhausted from the burning propellant and, thus, keeps the matter on the already contaminated land. In order to avoid the contaminated water from being carried downwind, a deflecting device in the form of a shroud or hood 21 is provided. This will catch the contaminated water and direct it to a safe location. Thus, the method comprises generally a method for disposing of a rocket motor having a propellant and an exhaust but no warhead. The method comprises the steps of burning the propellant and, at the same time, annularly spraying an enclosure of liquid completely surrounding the location in which the burning occurs. Preferably, the motor is clamped in a substantially vertical position with its exhaust end facing generally upwardly and, preferably, the venturi has been removed. In addition, preferably, the method is characterized by deflecting the water to within a shroud or hood. Also, preferably, the contaminated liquid is filtered and recycled.

VI. ISSUES

Issue 1

Are claims 21-23 indefinite under 35 U.S.C. 112, second paragraph, for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention?

Issue 2

Are claims 1-9 and 21-23 unpatentable under 35 U.S.C. 103(a) over Russian Patent RU 2021560 C1, hereinafter Russian patent, in view of British Patent GB 2306884 A, hereinafter British patent?

Issue 3

Are claims 1-9 and 21-23 unpatentable under 35 U.S.C. 103(a) over the British patent in view of the Russian patent?

Issue 4

Are claims 1, 3, 5-8 and 21-23 unpatentable under 35 U.S.C. 103(a) over the Russian patent in view of the British patent?

VII. GROUPING OF THE CLAIMS

The claims are grouped as follows:

With respect to Issue 1:

Claims 21-23 stand or fall together based on the rejection under 35 U.S.C. 112.

With respect to Issues 2, 3 and 4:

Group 1 – claims 1, 2, 5 and 6 - stand or fall together.

Group 2 – claims 3, 4 and 7 - stand or fall together.

Group 3 – claims 8 and 9 - stand or fall together.

Group 4 – claim 21 and 22 - stand or fall together.

Group 5 – claim 23 - stands or falls alone.

VIII. ARGUMENT

Issue 1 – Arguments

With respect to Issue 1, in the rejection under 35 U.S.C. 112, second paragraph, the examiner has stated: "Claims 21-23 recite the limitation 'the contaminated water' in line 2. There is insufficient antecedent basis for this limitation in the claim." It is respectfully submitted, however, that while the term "contaminated water" does not appear *in haec verba* in the claims, nevertheless the meaning is clear that what is being referred to is the liquid that completely

surrounds the location in which the burning occurs. There can be no other contaminated water. 35 U.S.C. 112 states as follows: "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." It is submitted that there is no reason to believe that the invention is not distinctly claimed since any person reading the specification and reading the claims would clearly understand the scope of these claims. In any event, the simple amendment after final could correct this and would not necessitate any additional searching. Thus, this rejection is respectfully traversed.

Issue 2 – Arguments

With respect to Issue 2 wherein the examiner has rejected claims 1-9 and 21-23 under 35 U.S.C. 103(a) as being unpatentable over the Russian patent in view of the British patent, before looking at each claim group separately, it is believed that an overview of the examiner's rejection and the differences between the prior art over the instant application as relating to all of the claims would be helpful.

The Examiner has rejected claims 1-9 and 21-23 under 35 U.S.C. 103(a) as being unpatentable over the Russian patent in view of the British patent. The Examiner characterizes the Russian patent as follows:

> "RU 2021560 C1 discloses the disposal of solid rocket fuel by combustion in the rocket body comprising placing the charge with the opening for combustion products upwards and filling with coolant to a level which separates the main part of the combustion surface. During the combustion, coolant is supplied to the combustion chamber to regulate the combustion process. Water of neutralizing solutions of soda and alkali are used as coolant. RU 2021560 C1 also discloses that this method increases safety (see English Abstract)."

This characterization is generally correct. The Examiner does recognize, however, that the Russian patent does not disclose the coolant being annularly sprayed to completely surround the

location at which the rocket is burned, which is correct. The Examiner then takes the position, however, that the British patent teaches annularly spraying a liquid to generate a liquid dispersion to at least surround an explosive body (e.g. the propellant of the rocket motor) to reduce the effect or suppress an explosion. While it is true that the British patent does teach annularly spraying a liquid, however, this is in conjunction with an explosive device which is contained within a pit. Moreover, the water in the British patent does not suppress an explosion. Rather, it is used to remove chemical products from the blast cloud (British patent, page 5, lines 11-12). A rocket motor is not an explosive device. Indeed, an explosion within a rocket motor occurs only as a result of a malfunction. The rocket is the vehicle by which a payload is conveyed from one point to another, and this payload may well be an explosive. In fact, on page 4 of the application, the first paragraph thereof clearly indicates that the munitions and an ancillary propulsion device be removed from the rocket motor. This, of course, is to prevent an explosion and its unintended consequences. Thus, the Examiner's characterization of the rocket motor as an explosive device is not believed to be correct. Indeed, the rocket motor is not exploded in the present process. Moreover, there is no indication or teaching, suggestion or motivation cited by the Examiner for one to use a liquid spray as taught in the British patent for removing chemical products from an explosive device being exploded in an entirely different scenario, i.e. in a method where the propellant in the rocket motor is being burned off. Indeed, there is nothing in either of these references which would suggest or motivate completely changing the method of the Russian patent wherein a liquid is filled into a chamber in which the rocket motor is contained and the liquid is continuously added. This is a totally and completely different technique and method for controlling the burning of a rocket motor from than used in the British patent for containing and controlling the controlled explosion of explosive devices. Where in either patent is this modification suggested?

It is not enough that one may modify a reference in view of a second reference, but rather it is required that the second reference suggest modification of the first reference and not merely provide the capability of modifying the first reference.

The CAFC stated In re Piasecki, 745 F.2d 1468, 223 USPQ 785, 788 (Fed: Cir. 1984) the following:

> "The Supreme Court in Graham v. John Deere Co., 383 U.S. 1 (1966), focused on the procedural and evidentiary processes in reaching a conclusion under Section 103. As adapted to ex parte procedure, Graham is interpreted as continuing to place the "burden of proof on the Patent Office which requires it to produce the factual basis for its rejection of an application under sections 102 and 103". Citing In re Warner, 379 F.2d 1011, 1020, 154 USPQ 173, 177 (CCPA 1967)."

The law is quite clear that in order for a claimed invention to be rejected on obviousness, the prior art must suggest the modifications sought to be patented; In re Gordon 221 U.S.P.Q. 1125, 1127 (CAFC 1984); ACS Hospital System, Inc. v. Montefiore Hospital, 221 U.S.P.Q. 929, 933 (CAFC 1984). The foregoing principle of law has been followed in Aqua-Aerobic Systems, Inc. v. Richards of Rockford, Inc. 1 U.S.P.Q. 2d, 1945 (D.C. Illinois 1986). In the Aqua-Aerobic's case, the Court stated that the fact that a prior reference can be modified to show the claimed invention does not make the modification obvious unless the prior reference suggests the desirability of the modification. The CAFC in the case of In re Gorman, 18 U.S.P.Q. 2d (CAFC 1991) held at page 1888:

> "When it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or motivation in the prior art to make the selection made by the applicant [citation]. 'Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination [citations]. . .. The references themselves must provide some teaching whereby the applicant's combination would have been obvious."

Further, the CAFC, in In Re Oetiker, 24 U.S.P.Q. 2nd 1443, 1445 (CAFC 1992) held:

> There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself.

Most significantly, the CAFC in the recent case of In Re Dembiczak, 50 U.S.P.Q.2nd 1614 (CAFC 1999) held at 1617:

> ...(examiner can satisfy burden of obviousness in light of combination 'only by showing some objective teaching [leading to the combination]');

Thus, it is clear that where an individual reference does not teach the entire invention, then the modification which the invention represents must be suggested and motivated by some other reference through some objective teaching and cannot come from the application itself, which is not the case here.

Thus, it is clear that there is absolutely no teaching, suggestion or motivation for completely changing the technique disclosed in the Russian patent of immersing the rocket for burning it off for the technique shown in the British patent of spraying a liquid to remove chemical products. Therefore, it is believed that this rejection must fail.

Turning now to claims 1, 2, 5 and 6 in Group 1 and referring to claim 1 of this group, the claim requires burning the propellant in a rocket motor and concomitantly annularly spraying an enclosure of liquid completely surround the location in which the burning occurs. The examiner admits that the Russian patent does not disclose that the coolant is annularly sprayed to completely surround the location in which burning occurs, but states that it would have been obvious to one of ordinary skill in the art to spray it because of the British patent which teaches annularly spraying a liquid to generate a liquid dispersion to at least surround an explosive body. However, as pointed out above, a rocket having its propellant discharged in a vertical direction is in no way related to an explosive charge. Indeed, as pointed out above, if there is an explosive involved, the explosive is removed and, as the appellant herein stated, the British patent just is not satisfactory for treating the propellant discharge by burning. As previously pointed out, not only is there no suggestion as to how to combine the teaching in the British patent with the Russian patent, indeed the teaching is that the British patent per se is not useful for treating the burning propellant. Thus, it is unclear what

rationale the examiner has for stating that the Russian patent could be modified by using the British patent. Hence, it is believed that clearly the Group 1 claims, i.e. 1, 2, 5 and 6, are allowable.

With respect to the Group 2 claims, i.e. 3, 4 and 7, these are dependent upon claims 1 and 2 and, for the same reasons, are believed to be allowable. In addition, claims 3, 4 and 7 require that the venturi mechanism of the rocket be removed prior to the burning step. The examiner merely states that it would have been obvious to remove a venturi but cites no prior art or any reference which would make this obvious. Merely making a statement that something is obvious is not satisfactory. Rather, the examiner must point to some specific suggestion or some objective teaching of obviousness, In re Dembiczak, *supra*. Since the examiner has cited no objective teaching, then this group of claims, 3, 4 and 7, is clearly allowable.

With respect to Group 3 claims, i.e. claims 8 and 9, these claims require filtering a liquid from the enclosure and recycling the filtered liquid. Again, the examiner states that it would be obvious but cites no objective teaching that such a step would be obvious and, thus, as pointed out above, since there is no objective teaching, this obviousness rejection must fail, In re Dembiczak, *supra.*

With respect to Group 4 claims 21 and 22, the examiner again cites no objective teaching of employing a hood or shroud and, thus, for this additional reason, claims 21 and 22, which are dependent upon claims 1 and 2, respectively, are allowable, In re Dembiczak, *supra*.

The same is true with respect to Group 5 claim 23, which is dependent upon claim 3. Again, there is no objective teaching of a shroud or hood and, thus, for this additional reason, claim 23 is believed to be allowable, In re Dembiczak, *supra*.

The above discussion has to do with the rejection of claims 1-9 and 21-23 under 35 U.S.C. 103(a) as unpatentable over the Russian patent in view of the British patent. As indicated above, the examiner has also rejected claims 1-9 and 21-23 under 35 U.S.C. 103(a) as being unpatentable over the British patent in view of the Russian patent. It is not believed necessary to again recite the

inappropriateness of the combination of these patents since it does not matter which patent is used as the basis and which is used as the modifier inasmuch as it is strongly urged that there is no suggestion that the British patent can be used in any form to dispose of a rocket motor and, thus, any combination of the British patent with the Russian patent is believed to be erroneous. Also, the lack of teaching of the various elements in the claims of Groups 2-5 is the same.

In addition, the examiner has rejected claims 1, 3, 5-8 and 21-23 under 35 U.S.C. 103(a) as being unpatentable over the Russian patent in view of the British patent. Since the same references were applied in the same manner in a previous rejection, it is not understood how this rejection is different. Nevertheless, the discussion provided above with respect to the Russian and British patents is equally applicable here.

SUMMARY

In view of the above, it is believed that each of the claims now in the application is distinguishable one from the other and over the prior art. It is believed that the reasons for allowability have been clearly and succinctly set forth in the arguments above and, therefore, it is requested that the Board reverse the examiner and allow claims 1-9 and 21-23.

Respectfully submitted,

Date: 8-3-01

William N. Hogg (Reg. No. 20,156)
DRIGGS, LUCAS, BRUBAKER & HOGG CO., L.P.A.
8522 East Avenue
Mentor, Ohio 44060
(440) 205-3600
Fax: 440-205-3601

WNH:cg

Attachments

APPENDIX

1. A method for disposing of a rocket motor having a propellant contained therein and having an exhaust, comprising the steps of:

burning said propellant and concomitantly annularly spraying an enclosure of liquid completely surrounding the location in which the burning occurs.

2. A method according to claim 1, wherein the liquid includes at least one neutralising chemical for neutralising at least some noxious substances resulting from the burning or for capturing hazardous materials, or both.

3. A method according to claim 1, wherein said rocket contains a venturi mechanism, and wherein said venturi mechanism is removed prior to the burning step.

4. A method according to claim 2, wherein said rocket contains a venturi mechanism, and wherein said venturi mechanism is removed prior to the burning step.

5. A method according to claim 1, wherein the motor is secured in a substantially vertical position, with its exhaust end facing generally upwards, during the burning step.

6. A method according to claim 2, wherein the motor is clamped in a substantially vertical position, with its exhaust end facing generally upwards, during the burning step.

7. A method according to claim 3, wherein the motor is secured in a substantially vertical position, with its exhaust end facing generally upwards, during the burning step.

8. A method according to claim 1, comprising further steps of filtering liquid from said enclosure and recycling the filtered liquid.

9. A method according to claim 2, comprising further steps of filtering liquid from said enclosure and recycling the filtered liquid.

21. The method according to claim 1 further characterized by deflecting the contaminated water to within a shroud or hood .

22. The method according to claim 2 further characterized by deflecting the contaminated water to within a shroud or hood.

23. The method according to claim 3 further characterized by deflecting contaminated water to within a shroud or hood.